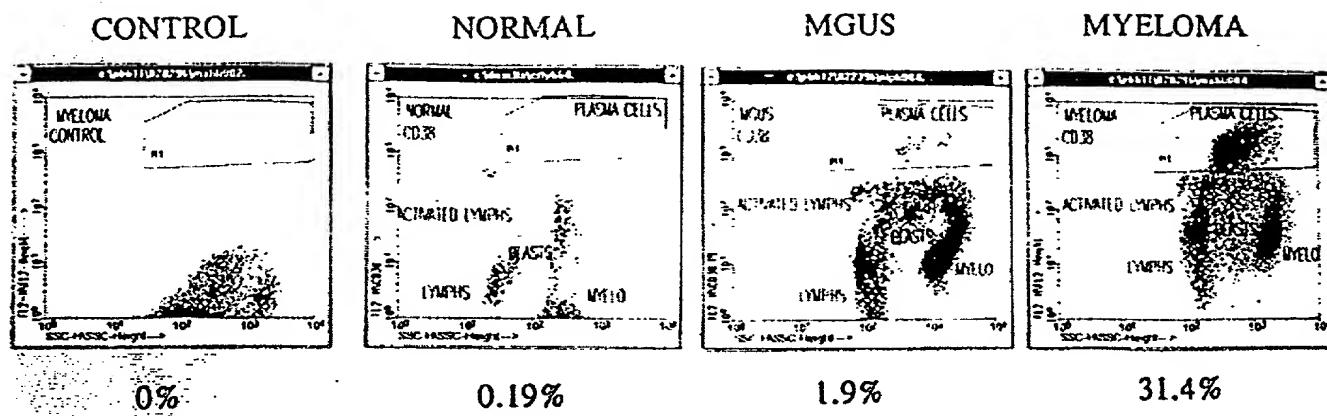
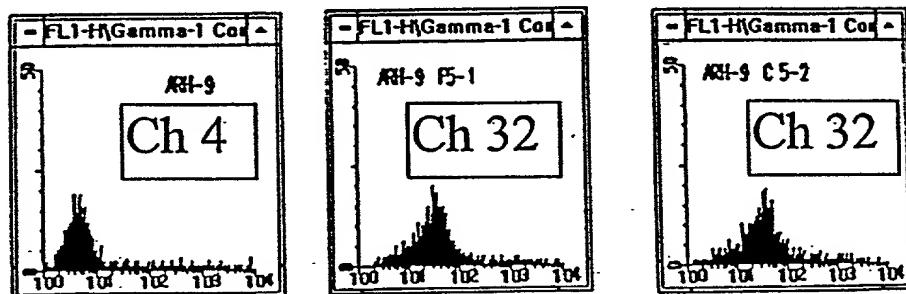


# FIG. 1

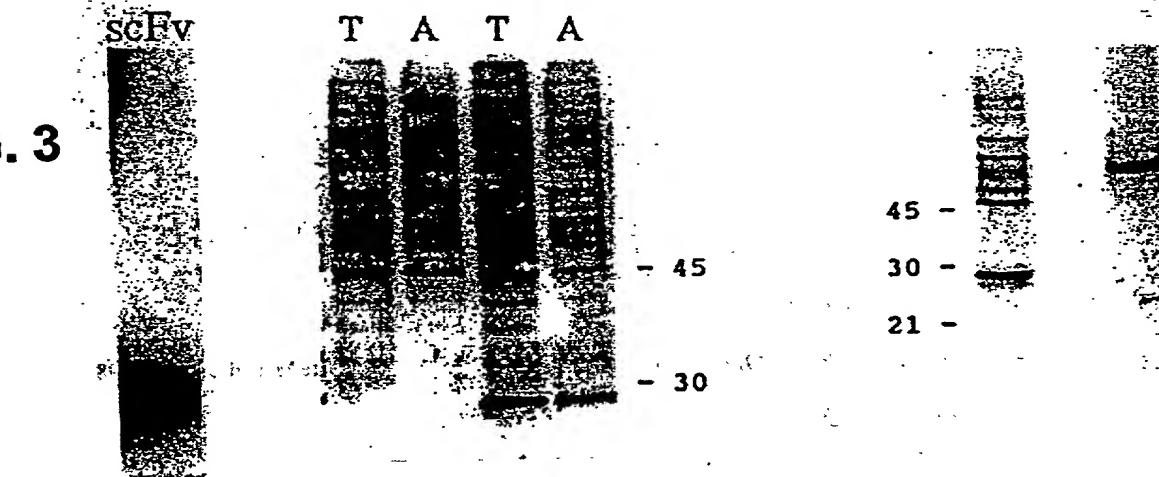


# FIG. 2



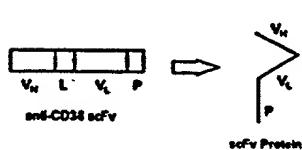
15 min.  
Control scFv  
38+ 38-

# FIG. 3



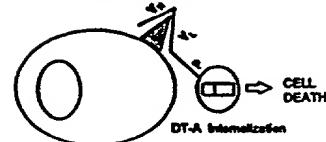
# FIG. 4

ANTI-CD38 scFv



# FIG. 5

ANTI-CD38 scFv



**FIG. 6**

**FIG. 6 (con't)**

TGTGACCCAAAGCGGTCAAGAGGTCTTCCCAGACCTCACCGACCCCTCACTATACCTCTCC

T L G S P V S R K G S G V A G S D M E R -  
H W V R Q S P G K G L E W L G V I W R G -  
T G F A S L Q B R V W S G W E \* Y G E V -

	N			B	S
CB C	1 B	H		B	S
vSTAv	aBs	HD i		ss	f
iosli	Ibp	pd n		at	a
RFeuJ	IvG	he 4		Jy	N
IIIII	III	II I		II	I

181 ACCTTCGCTGTCTGATGTTACGTCGAAAGTACAGGTCTGACTCGTAGTGGTTCCCTGGTGTAG 240

W K H R L Q C S F H V Q T E H H Q G Q L -  
G S T D Y N A A F M S R L S I T K D N S -  
E A Q T T M Q L S C P D \* A S P R T T P -

C C C  
MD v a Av  
sr i c li  
ea R s uJ  
II I II

**CAAGAGCCAAGTTTCTTTAAATGAACAGTCTGCAAGCTGATGACACTGCCATATACTT**

241 **GATGAGCCGCGA** AAGCAAGTGATGTCTGCA GCTTTCGACTACTGTACGGTA TATGAA 300

Q E P S F L \* N E Q S A S \* \* H C H I L -  
K S Q V F F K M N S L Q A D D T A I Y F -  
R A K F S L K \* T V C K L M T L P Y T S -

		S	H	S
B	C	a	CBaN	A NB Pa
S	V	B	uBvseLS	vHlsDsU
C	i	f	9siaLat	apaash9
G	J	i	6rJJIIY	IhIJaAG
I	I	I	IIIIVI	IVVIII

301 CTGTGCCAAACCTGATTACGACGGGCTATGCTATGGACTACTGGGGCCAAGGGACCAC  
360

L C Q N L D Y D G L C Y G L L G P R D H -  
C A K T L I T T G Y A M D Y W G Q G T T -  
V P K P \* L R R A M L W T T G A K G P R -

BMT		B						S
Bsas	B	BBS						a
step	s	ssuDM	M A	MM	AE	M v	A	AEu D

eEI4	m	mm3dn	n c	nw	cc	w	i	c	cc3 p
RII5	r	AB6el	l i	lo	ii	o	j	i	iiA n
III	I	IIII	I I	II	II	I	I	I	III I

**GGTCACCGTCTCCTCAGGTGGAGGCCGTTCAAGCGGAGGTGGCTCTGGCGGTGGCGGATC**

**FIG. 6 (con't)**

361 -----+-----+-----+-----+-----+-----+-----+ 420

CCAGTGGCAGAGGAGTCCACCTCCGCCAAGTCCGCCTCCACCGAGACCGCCACCGCTTAG  
 G H R L L R W R R F R R R R W L W R R W R I -  
 V T V S S G G G G S G G G G S G G G G S -  
 S P S P Q V E A V O A E V A L A V A D R -

	B	Bs	sp	CBil	B	B	M	B	s	B	H	T
H	i	A	T	AvaH2DFSS	BS	BS	m	m	m	f	siepl	MTt
n	l	a		linK8doaa	Cm	Cm	n	n	n	f	annI41	BHHash
4	w	q		uJIA6ekcx	CA	CA	l	A	a	h	X4fI51	
I	I	I		IIIIIIII	II	II	I	I	I	I	IIIII	

GGACATCGAGCTCACTCAGTCTCCATCCTCTTTCTGTATCTCTAGGAGACAGAGTCAC

421 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 480  
CCTGTAGCTGAGTGAGTCAGAGGTAGGAGGAAAAGACATAGAGATCCTCTGTCTCAGTG

G H R A H S V S I L L F C I S R R Q S H -  
D I E L T Q S P S S F S V S L G D R V T -  
T S S S L S L H P P F L Y L \* E T E S P -

Pleii Cvirri Mnli Ecs Voc Irr JIF III Ecorri Scri

CATTACTTGCAAGGCAAGTGAGGGACATATAATCGGTTAGCCTGGTATCAGGCAGAAACG

H Y L Q G K \* G H I \* S V S L V S A E T -  
I T C K A S E D I Y N R L A W Y Q Q K P -  
L L A R O Q V R T Y I I G \* P G I S R N Q -

A	B	C		C	B		B	N
vBss	vI	M		vI	s		f	laIV
rfat	i	s		R	x		s	rI
IaJy	J			I	I		I	
III	J							

541 AGGAAATGCTCCTAGGCTCTTAATATCTGGTGCAACCAGTTGGAAACTGGGGTTCCCTTC  
TCCCTTACGAGGATCCGAGAATTATAGACCAACGGTGTCAAACCTTTGACCCCCAAGGAAC 600

R K C S \* A L N I W C N Q F G N W G S F -  
G N A P R L L I S G A T S L E T G V P S -  
E M L L G S \* Y L V Q P V W K L G F L Q -

H	T	Ba	T	S	C	M
iT	s.	suds	A		Do	Bb
nf	p	t3pp	I		d5	bo

fi R YAnR w e7 sI r

## FIG. 6 (con't)

II      VI      IIII      I      II      II      I

/      /      /      /      /      /      /

601 AAGATTCACTGGCAGTGGATCTGAAAGGATTACACTCTCAGCATTACCAAGTCITCAGAC  
 TTCTAAGTCACCGTCACCTAGACCTTCTTAATGTGAGAGTCGTAATGGTCAGAAGTCTG      660

K I Q W Q W I W K G L H S Q H Y Q S S D -  
 R F S G S G S G K D Y T L S I T S L Q T -  
 D S V A V D L E R I T L S A L P V F R L -

M	E	H			
b	c	i	U	M	A
o	o	n	Rsb	a	v
i	5	c	sca	BM	a
i	7	j	e	sn	i
i	i	i	aac	I	i
	i	i	III	II	i

//      /

661 TGAAGATGTTGCTACTTATTACTGTCAACAGTATTGGAGTACTCCTACGTTGGAGG      720  
 ACTTCTACAACGATGAATAATGACAGTTGTCATAACCTCATGAGGATGCAAGCCACCTCC

\* R C C Y L L L S T V L E Y S Y V R W R -  
 E D V A T Y Y C Q Q Y W S T P T F G G G -  
 K M L L L I T V N S I G V L L R S V E G -

S		H	
Na	C	B	B B C BB Ga
lu	Av	s	s AsEvAsxEdeNTT
a9	j	m	c coaicioaiIoa
I6	e	wJ	G ifeJieFgIIItuu
VI	I	II	I IIIIIIIIIIIII
	/	/	/ / / / / / /

721 GACCAAGCTGGAAATCAAACGGGCGGCCGC      750  
 CTGGTTCGACCCTTAGTTGCCCGCCGGCG

D Q A G N Q T G G R -  
 T K L E I K R A A -  
 P S W K S N G R P -